

## ABSTRACT OF THE DISCLOSURE

A substrate treatment assembly for treating a work object on a surface of a substrate by supplying to the work object a wet ozone-containing gas wetted with a treatment solution includes a substrate heating device for maintaining a substrate at a temperature higher than room temperature, a wetting device for obtaining a wet ozone-containing gas by wetting an ozone-containing gas with a treatment solution, a supply device for supplying the wet ozone-containing gas to a work object on a surface of the substrate, a gas conduit connecting the wetting device to the supply device, and a heating device for heating the wet ozone-containing gas so as to be at a temperature approximately equal to or greater than the temperature of the substrate.